IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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) Group Art Unit: 1794
Examiner: Jennifer A, Steele
Confirmation No.: 1075
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Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, Markus Hornung, do hereby make the following declaration:

I am a Chemical Engineer working in the membrane research group for Gambro Dialysatoren GmbH, a subsidiary of Gambro Lundia AB.

I earned a degree in Chemical Engineering from Reutlingen University and have worked in the area of membrane technology for 9 years.

I calculated a pore density of 2,600,000 per mm² for the membrane of Figure 1 of European Patent Document EP 0568045 A1 to Kawata et al. ("Kawata"). In order to calculate this pore density, I used the central 50 mm (width) by 40 mm (height) section of Figure 1. I used this central section because the contrast is better in this section than at the edges of Figure 1. I interpreted dark blots surrounded by a tight halo as pores. This interpretation may, in fact, underestimate the actual number of pores as some

pores may be missed due to poor contrast in portions of Figure 1. Thus, the number of pores calculated should be considered a lower limit of the actual pore number disclosed in *Kawata*.

The factor of magnification for Figure 1 is disclosed in *Kawata* as being 10,000X (see *Kawata* pg. 5, lines 8-10). Additionally, *Kawata* discloses that the size of the pores in Figure 1 is 0.05 to 1 microns in diameter. (See, e.g., *Kawata* pg. 12, lines 22-23.) Based on this information, I measured several of the pores to verify that the factor of magnification in the text agreed with the pore size that I measured in Figure 1. My measurement results were consistent with the 10,000X factor of magnification disclosed in the text.

Accordingly, based on the factor of magnification disclosed in *Kawata*, an area of 50 mm x 40 mm in the photograph corresponds to 50°10⁻⁴ mm x 40°10⁻⁴ mm in reality (i.e., an area of 20°10⁻⁶ mm²). I counted 52 pores in the central section. Thus, based on my measurements, the pore density is 52 pores per 20°10⁻⁶ mm², or 2,600,000 pores per mm².

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: スケスケークドーろん

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